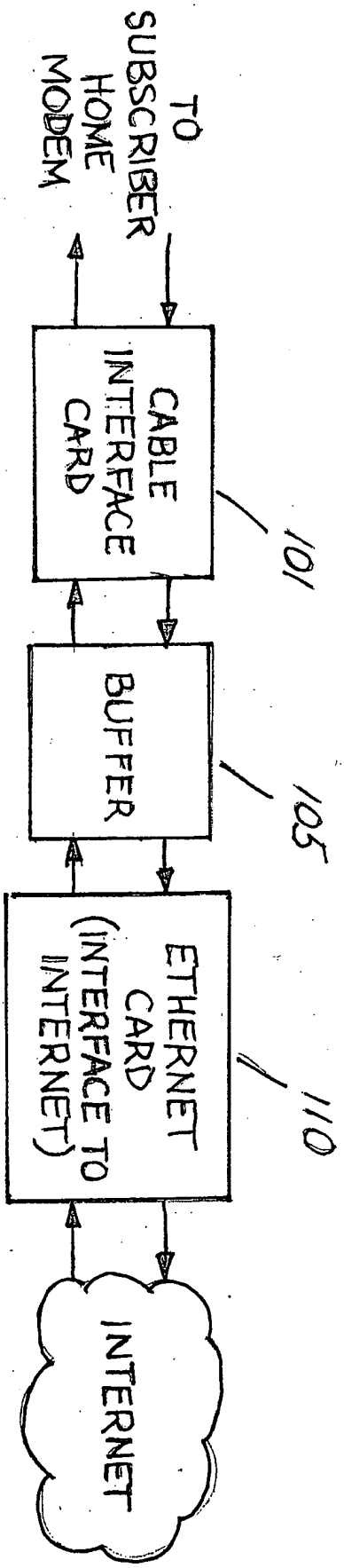


FIG. 1
(PRIOR ART)

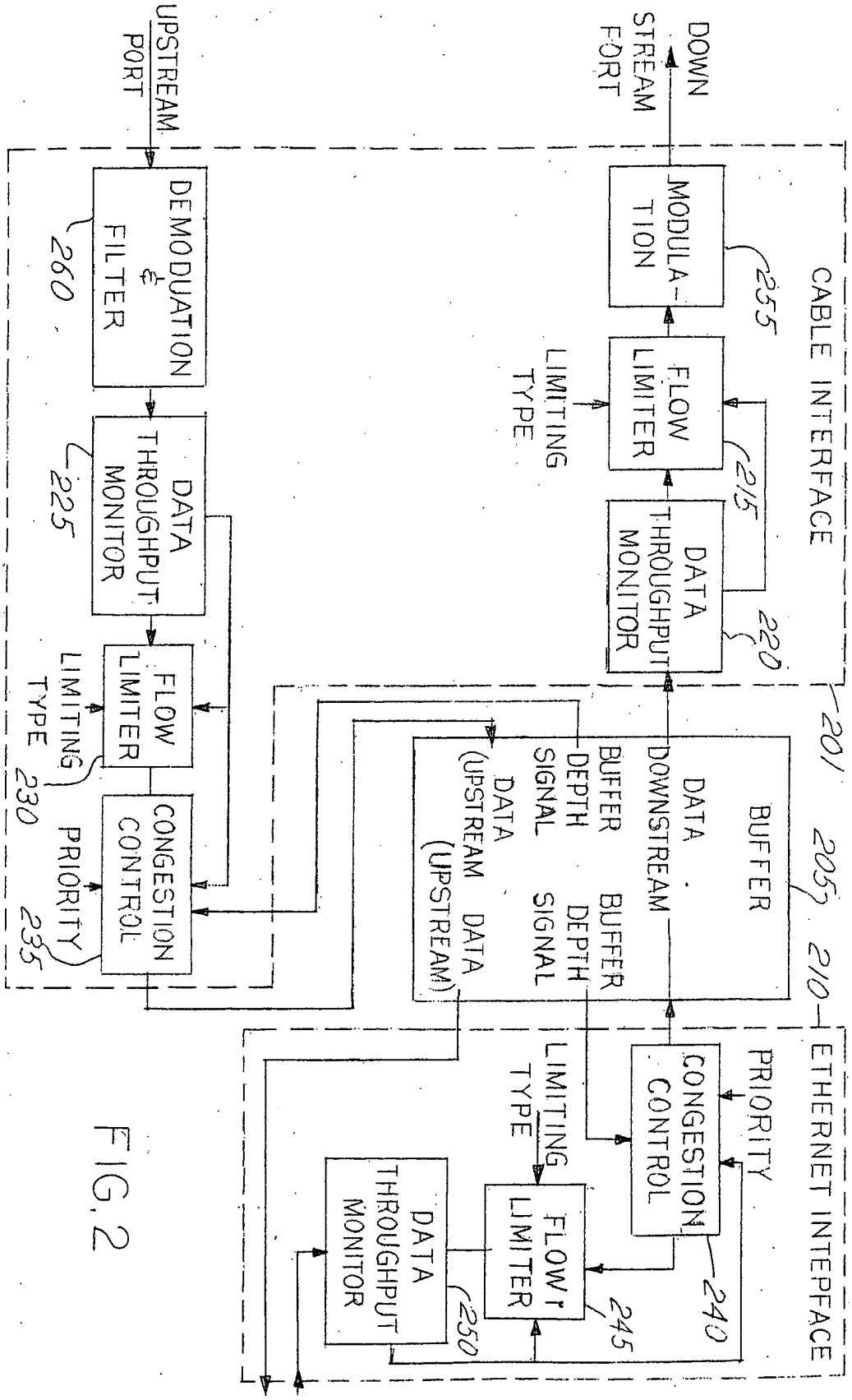

UPSTREAM PORT
DOWN STREAM PORT
CABLE INTERFACE
201
DEMODUATION & FILTER
260
DATA THROUGHPUT MONITOR
225
FLOW LIMITER
LIMITING TYPE
230
CONGESTION CONTROL
PRIORITY
235
MODULA-TION
255
FLOW LIMITER
LIMITING TYPE
215
DATA THROUGHPUT MONITOR
220
BUFFER
205
DATA DOWNSTREAM
BUFFER DEPTH SIGNAL
DATA (UPSTREAM)
BUFFER DEPTH SIGNAL
DATA (UPSTREAM)
210
ETHERNET INTEPFACE
PRIORITY
CONGESTION CONTROL
240
LIMITING TYPE
FLOW LIMITER
245
DATA THROUGHPUT MONITOR
250

FIG. 2

FIG. 3

CURRENT FLOW RATE

CURRENT PACKET PRIORITY	NEEDY	NORMAL	GREEDY	SURER-GREEDY
	MINth MAXth Pa			
PRIORITY 0	98% 99% 0.1	75% 95% 0.1	65% 85% 0.1	5% 25% 0.1
PRIORITY 1	98% 99% 0.1	65% 85% 0.1	55% 75% 0.1	5% 25% 0.1
PRIORITY 2	98% 99% 0.1	55% 75% 0.1	45% 65% 0.1	5% 25% 0.1
PRIORITY 3	98% 99% 0.1	45% 65% 0.1	35% 55% 0.1	5% 25% 0.1
PRIORITY 4	98% 99% 0.1	35% 55% 0.1	25% 45% 0.1	5% 25% 0.1
PRIORITY 5	98% 99% 0.1	25% 45% 0.1	15% 35% 0.1	5% 25% 0.1

ENSURES Tmin IS GUARANTEED

ENSURES Tmax IS A PSEUDO-HARD LIMIT

FIG. 4

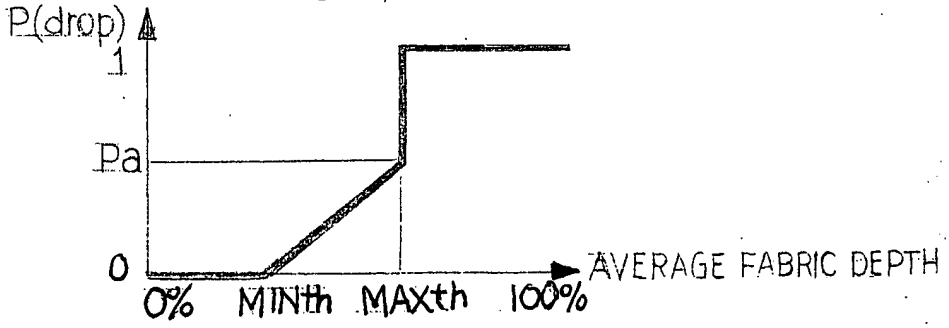
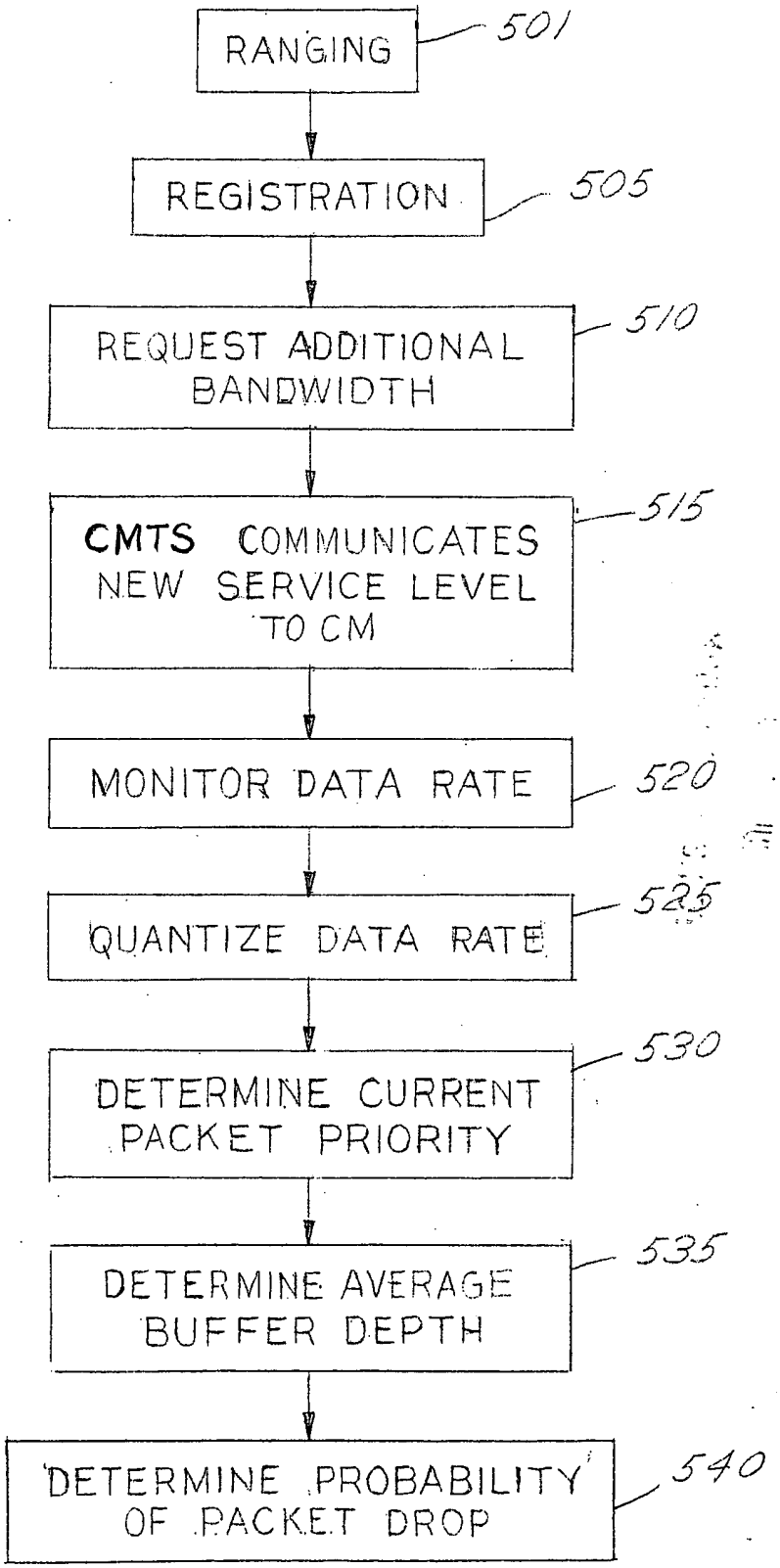


FIG.5


RANGING
501
REGISTRATION
505
REQUEST ADDITIONAL BANDWIDTH
510
CMTS COMMUNICATES NEW SERVICE LEVEL TO CM
515
MONITOR DATA RATE
520
QUANTIZE DATA RATE
525
DETERMINE CURRENT PACKET PRIORITY
530
DETERMINE AVERAGE BUFFER DEPTH
535
DETERMINE PROBABILITY OF PACKET DROP
540

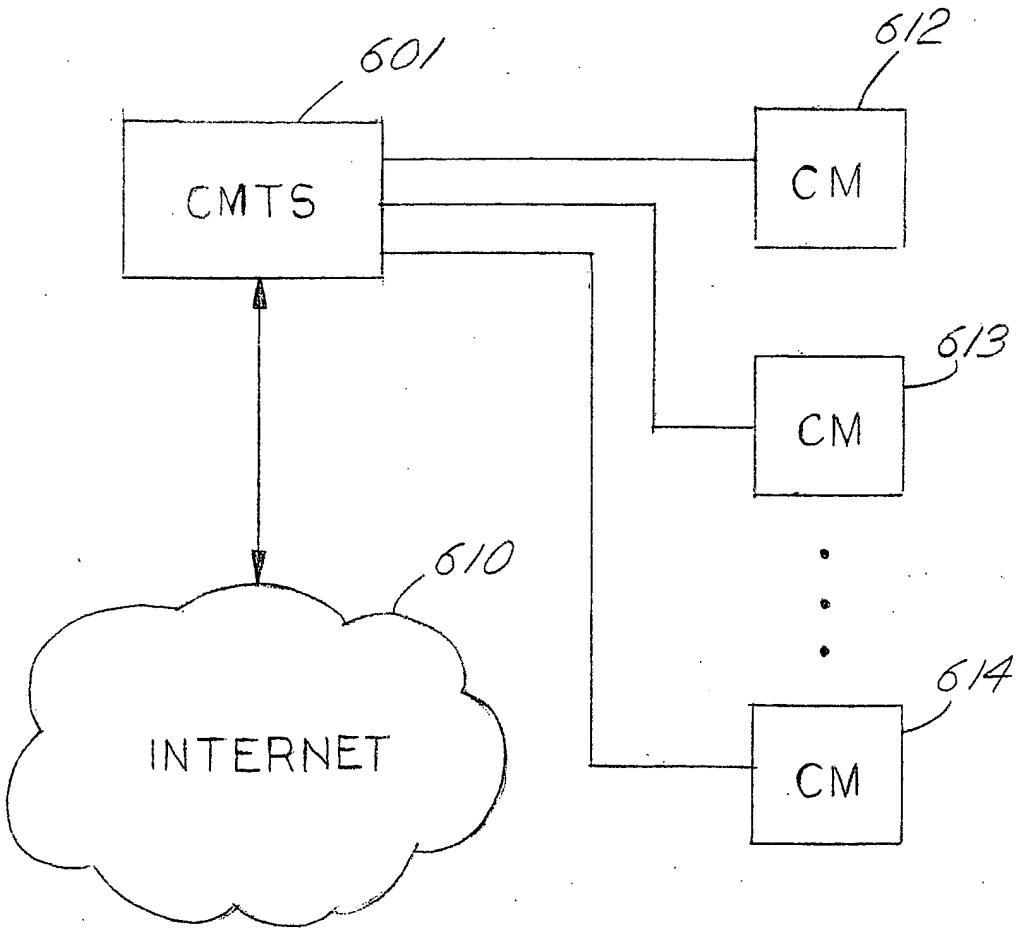



FIG.6